No. 9100071

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Holden's Foundation Seeds, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT ...IETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT ...T. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

CORN

'LH213'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of* Washington, D.C. *this* 30th *day of* September *in the year of our Lord one thousand nine hundred and* ninety-two.

Attest:

Kenneth A. Evans

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Edward Madigan

Secretary of Agriculture

FORM APPROVED: OMB 0581-0055, Expires 1/31/91

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

Application is required in order t determine if a plant variety protectio certificate is to be issued (7 U.S.C. 2421) Information is held confidential unti certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) *(as it is to appear on the Certificate)*
Holden's Foundation Seeds, Inc.

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NO.
Ex2063

3. VARIETY NAME
LH213

4. ADDRESS *(street and no. or R.F.D. no., city, state, and ZIP)*
P.O. Box 839
201 North Maplewood Avenue
Williamsburg, Iowa 52361

5. PHONE *(Include area code)*
319-668-1100

FOR OFFICIAL USE ONLY

PVPO NUMBER
9100071

FILING
Date: January 16, 1991
Time: ☐ A.M. ☐ P.M.

FEES RECEIVED
Filing and Examination Fee: $ 2150.00
Date: January 16, 1991
Certificate Fee: $ 250.00
Date: Sept. 3, 1992

6. GENUS AND SPECIES NAME
Zea mays

7. FAMILY NAME *(Botanical)*
Gramineae

8. CROP KIND NAME *(Common Name)*
Corn, Field

9. DATE OF DETERMINATION
November 1989

10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION *(Corporation, partnership, association, etc.)*
Corporation

11. IF INCORPORATED, GIVE STATE OF INCORPORATION
Iowa

12. DATE OF INCORPORATION
1968

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS
Mr. Mark Armstrong
P.O. Box 839
Williamsburg, Iowa 52361
319-668-1100
PHONE *(Include area code)*:

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED *(Follow INSTRUCTIONS on reverse)*

a. ☒ Exhibit A, Origin and Breeding History of the Variety.
b. ☒ Exhibit B, Novelty Statement.
c. ☒ Exhibit C, Objective Description of Variety.
d. ☒ Exhibit D, Additional Description of Variety.
e. ☒ Exhibit E, Statement of the Basis of Applicant's Ownership.
f. ☒ Seed Sample (2,500 viable untreated seeds). Date Seed Sample mailed to Plant Variety Protection Office 1/11/91
g. ☒ Filing and Examination Fee ($2,150) made payable to "Treasurer of the United States."

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See section 83(a) of the Plant Variety Protection Act.)*
☐ YES *(If "YES," answer items 16 and 17 below)* ☒ NO *(If "NO," skip to item 18 below)*

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ YES ☐ NO

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?
☒ YES *(If "YES," through* ☐ Plant Variety Protection Act ☒ Patent Act. Give date: 12/3/90 .)
☐ NO

19. HAS THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?
☐ YES (If "YES," give names of countries and dates)
☒ NO

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in section 41, and is entitled to protection under the provisions of section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT *(Owner(s))*	CAPACITY OR TITLE	DATE
Ronald Holden	President	1/11/91
SIGNATURE OF APPLICANT *(Owner(s))*	CAPACITY OR TITLE	DATE

Origin and Breeding History of the Inbred

Exhibit A

LH213 was developed from the single cross LH123Ht x LH51 by selfing and using the pedigree system of plant breeding. LH123Ht and LH51, the progenitors of LH213, are both proprietary lines of Holden's Foundation Seeds, Inc. On the following pages are a summary and description of the development of LH213. Also included are copies of pages from Holden's Foundation Seeds, Inc. nursery books. The rows associated with the development of LH213 have been highlighted. It is important to note that LH123Ht was the actual inbred used in the development of LH213. There is only one version of LH123Ht and it is a protected corn inbred under a Plant Variety Protection Certificate No. 8400030. The Ht designation was dropped in the nursery book for convenience.

Attached is a statement from the originating plant breeder, Gary Arthur, stating that the line is uniform, stable and free of variance from within the population.

JMS 8/20/92 per applicant letter

The selection criteria used during the development of LH213 were yield, stalk quality, root quality, disease tolerance, late plant greenness, late plant intactness, ear retention, pollen shedding ability, silking ability and corn borer tolerance.

Origin and Breeding History of the Inbred
LH213 = Ex2063 = LH123 x LH51

Exhibit A

FIELD/ROW	PEDIGREE	LOCATION	YEAR
VonAhsen	LH213	Iowa	1990
Tamura	LH213	Hawaii	1989-90
7429-7438	Ex2063	Indiana	1989
15102	Ex2063	Hawaii	1988-89
4137	LH123 x LH51 @7	Indiana	1988
13375	LH123 x LH51 @6	Hawaii	1987-88
1155	LH123 x LH51 @5	Indiana	1987
13354	LH123 x LH51 @4	Hawaii	1986-87
3393	LH123 x LH51 @3	Indiana	1986
4330	LH123 x LH51 @2	Indiana	1985
9597	LH123 x LH51 @1	Indiana	1984
190	LH123 x LH51	Hawaii	1984
3078 134	LH123 LH51	Hawaii	1983

Uniformity Statement

Exhibit A

I have observed LH213 during the last four generations it has been increased: 1988-89 Hawaii nursery row 15102; 1989 Indiana nursery rows 7429-7438; 1989-90 Hawaii Tamura production field; and 1990 Iowa Von Ahsen production field. In each of these increases, seeds from the previous generaton were planted. LH213 is very stable and uniform from generation to generation. LH213 is also free of variance from within the population.

Gary Arthur
Plant Breeder

Exhibit B

NOVELTY STATEMENT

LH213 most closely resembles LH123Ht; however, the most distinguishing characteristic is ear height. Data from 145 observations in 1990 indicates a significant difference in ear height between LH213 and LH123Ht at the 1% probability level. This is according to a paired T test. Means show that on average LH213 is shorter in ear height than LH123Ht.

LH213 has more kernel rows per ear than LH123Ht. Data from 67 observations in 1990 indicates a significant difference in number of kernel rows per ear between LH213 and LH123Ht at the 1% probability level according to a paired T test. Means show that on average LH213 has more kernel rows per ear than LH123Ht. It is also interesting to note that the median number of kernel rows per ear for LH213 is 16 while the median number of kernel rows per ear for LH123Ht is 14.

The tassel of LH213 has an approximate lateral branch angle of 30 to 40 degrees while the LH123Ht tassel has an approximate lateral branch angle greater than 45 degrees.

Exhibit B: The statistical analysis used to differentiate LH213 from LH123Ht in ear height and number of kernel rows per ear was the T-test. This statistical analysis was appropriate in the case of the ear height characteristic because the distribution was a normal distribution. The number of kernel rows per ear characteristic, however, did not show a normal distribution and had to be analyzed using non-parametric statistics. The data was transformed and analyzed using the Wilcoxson signed ranks test. Both of these characteristics were evaluated at Williamsburg, Iowa during the 1990 and 1991 growing seasons. Enclosed are the statistical analysis results of each characteristic. In each case the probability value in all the analyses was zero which suggests a significant difference at the 1% probability level.

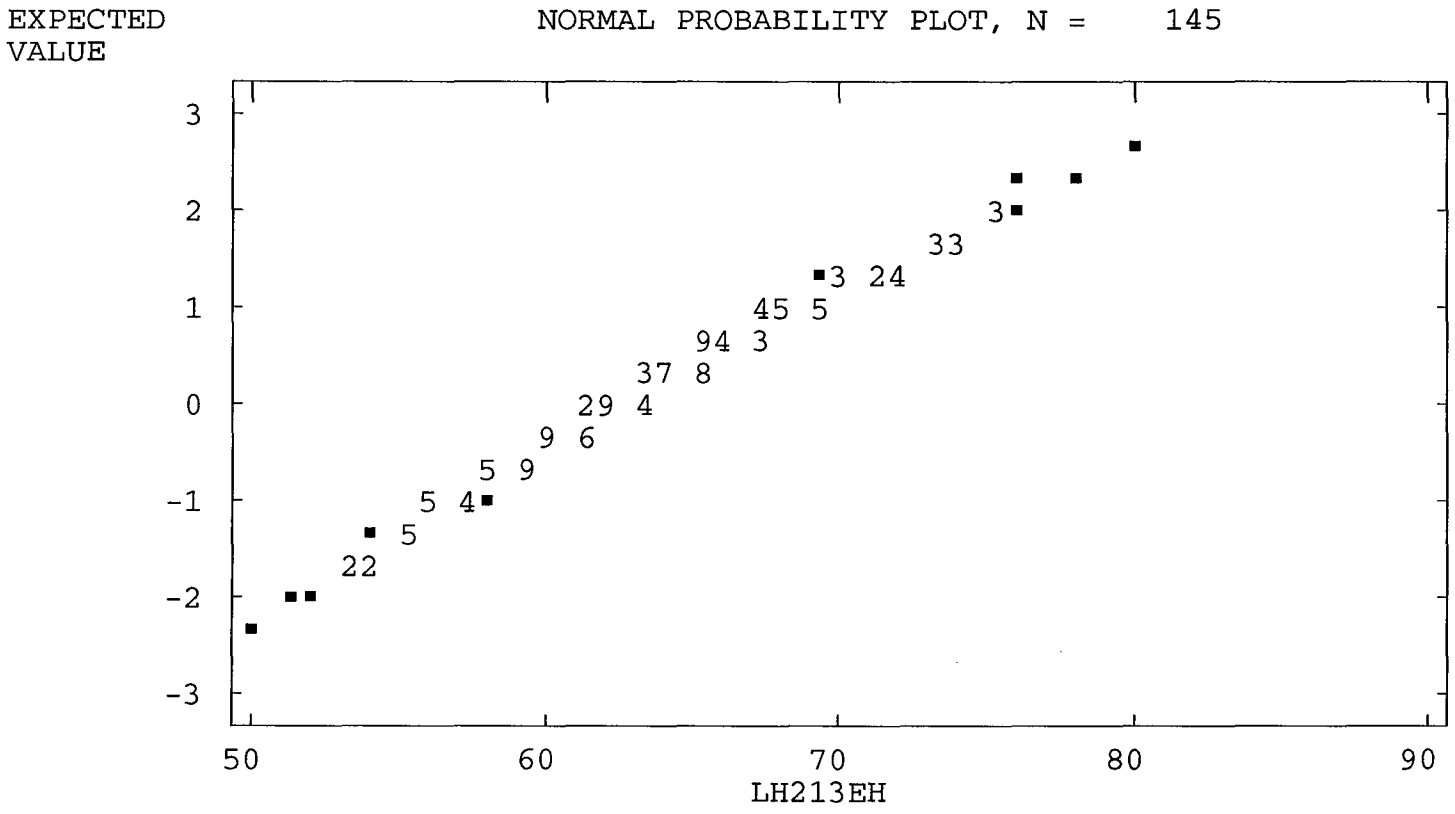
LH123HT EAR HEIGHT VERSUS LH213 EAR HEIGHT 1990

TOTAL OBSERVATIONS: 145

	LH123EH	LH213EH	NR1
N OF CASES	145	145	145
MINIMUM	67.000	50.000	-2.639
MAXIMUM	105.000	80.000	2.262
RANGE	38.000	30.000	4.901
MEAN	84.966	63.441	-0.159
VARIANCE	61.075	35.484	0.927
STANDARD DEV	7.815	5.957	0.963
STD. ERROR	0.649	0.495	0.080
SKEWNESS(G1)	0.168	0.310	-0.082
KURTOSIS(G2)	-0.272	-0.178	-0.156
SUM	12320.000	9199.000	-23.073
C.V.	0.092	0.094	-6.050
MEDIAN	85.000	63.000	-0.104

PAIRED SAMPLES T-TEST ON LH123EH VS LH213EH WITH 145 CASES

MEAN DIFFERENCE = 21.524
SD DIFFERENCE = 9.377
T = 27.640 DF = 144 PROB = 0.000



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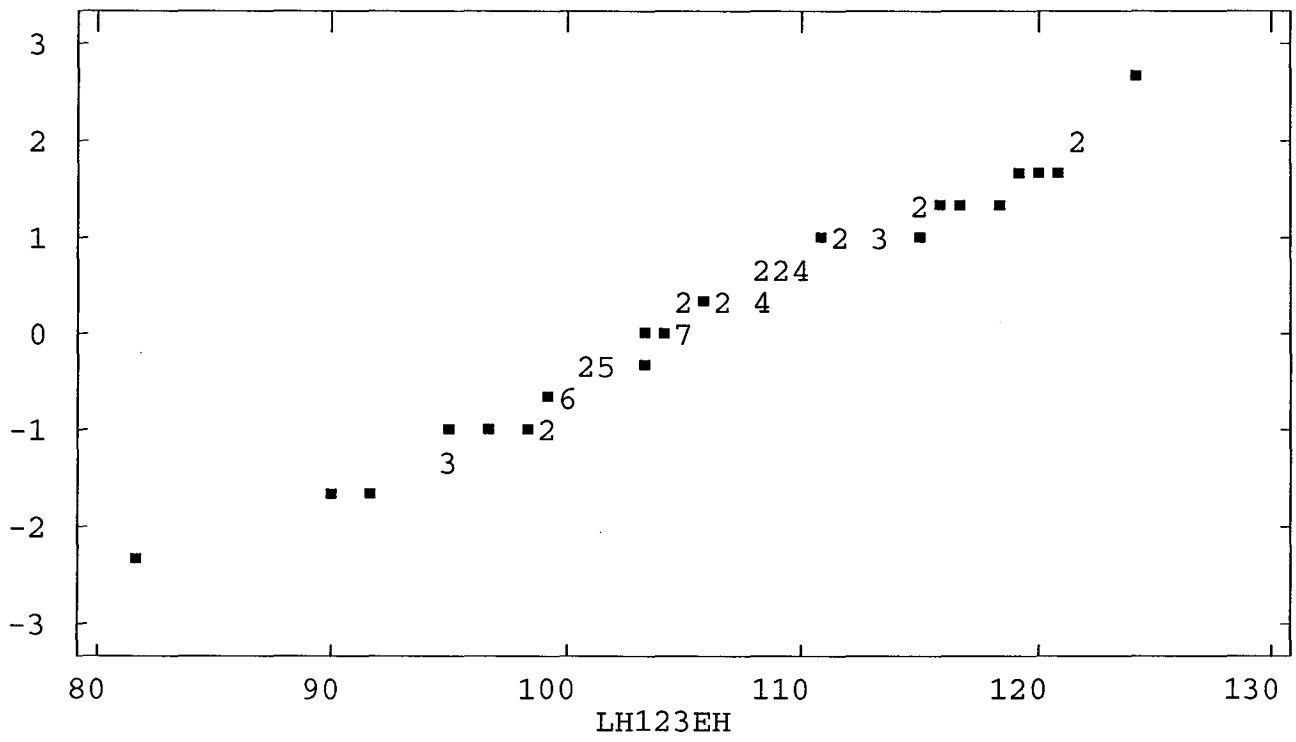
LH123HT EAR HEIGHT VERSUS LH213 EAR HEIGHT 1991

TOTAL OBSERVATIONS: 70

	LH123EH	LH213EH	NR1
N OF CASES	70	70	70
MINIMUM	82.000	60.000	-2.639
MAXIMUM	124.000	91.000	1.832
RANGE	42.000	31.000	4.471
MEAN	106.100	73.943	-0.140
VARIANCE	66.178	49.156	0.982
STANDARD DEV	8.135	7.011	0.991
STD. ERROR	0.972	0.838	0.118
SKEWNESS(G1)	-0.028	0.252	-0.491
KURTOSIS(G2)	0.200	-0.283	-0.051
SUM	7427.000	5176.000	-9.789
C.V.	0.077	0.095	-7.086
MEDIAN	105.000	73.000	-0.092

PAIRED SAMPLES T-TEST ON LH123EH VS LH213EH WITH 70 CASES

MEAN DIFFERENCE = 32.157
SD DIFFERENCE = 9.991
T = 26.929 DF = 69 PROB = 0.000



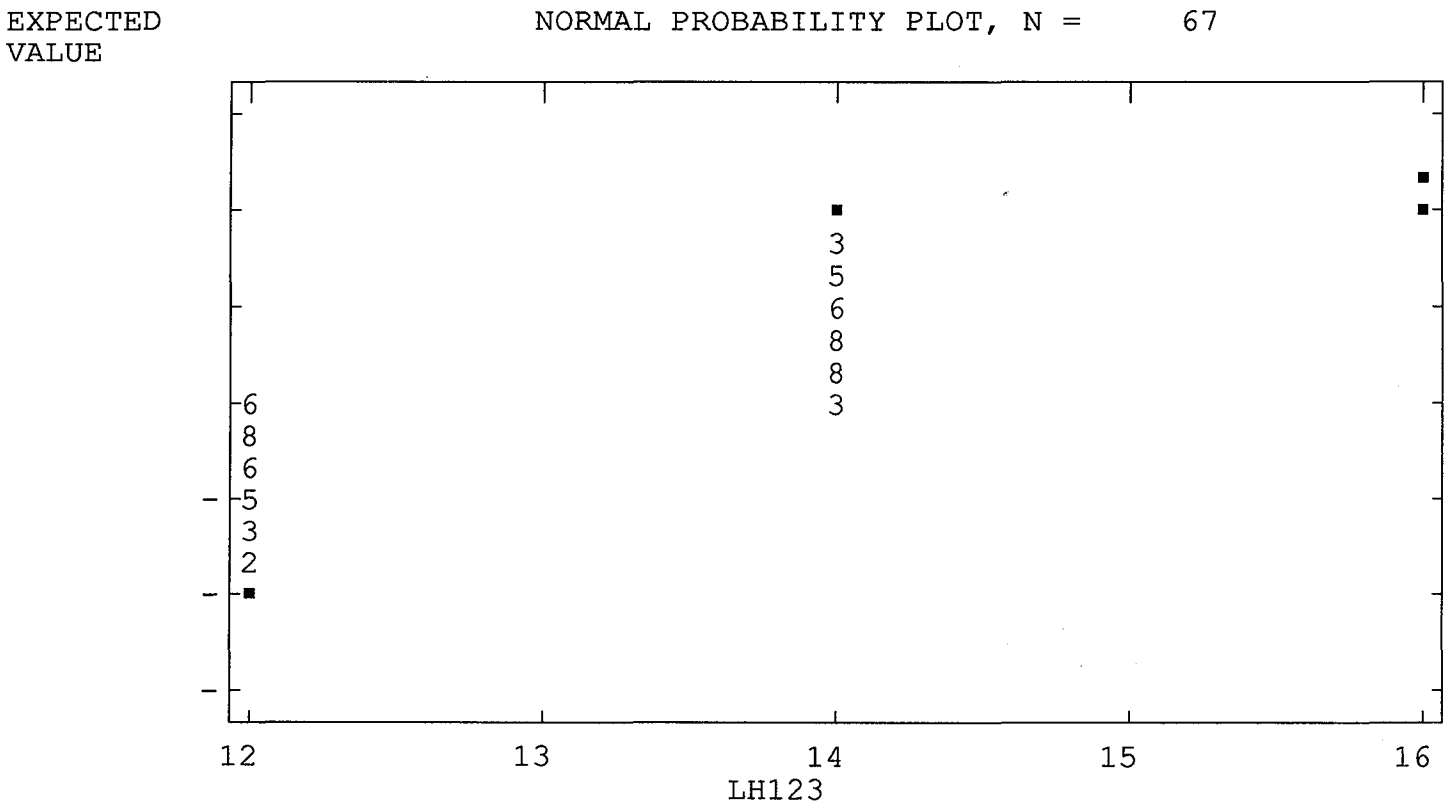
LH123 VERSUS LH213 NUMBER OF KERNEL ROWS 1990

TOTAL OBSERVATIONS: 67

	LH123	LH213	NR1
N OF CASES	67	67	67
MINIMUM	12.000	14.000	-2.639
MAXIMUM	16.000	18.000	1.832
RANGE	4.000	4.000	4.471
MEAN	13.134	15.493	-0.109
VARIANCE	1.239	1.496	0.974
STANDARD DEV	1.113	1.223	0.987
STD. ERROR	0.136	0.149	0.121
SKEWNESS(G1)	0.264	0.193	-0.536
KURTOSIS(G2)	-0.944	-0.569	0.068
SUM	880.000	1038.000	-7.300
C.V.	0.085	0.079	-9.060
MEDIAN	14.000	16.000	-0.080

PAIRED SAMPLES T-TEST ON LH123 VS LH213 WITH 67 CASES

MEAN DIFFERENCE = -2.358
SD DIFFERENCE = 1.703
T = -11.335 DF = 66 PROB = 0.000



9100071

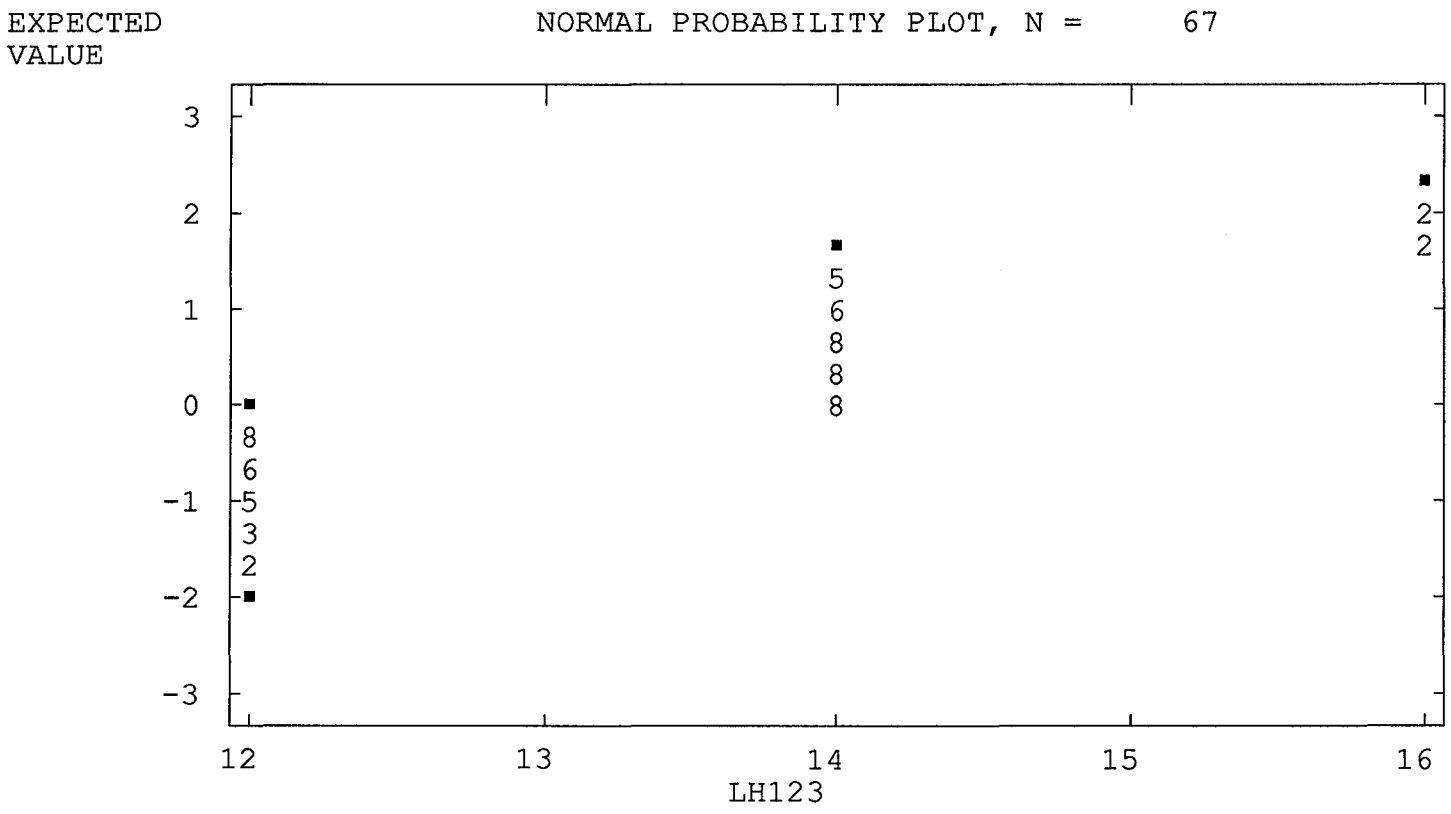
LH123 VERSUS LH213 KERNEL ROWS 1991

TOTAL OBSERVATIONS: 67

	LH123	LH213	NR1
N OF CASES	67	67	67
MINIMUM	12.000	12.000	-2.639
MAXIMUM	16.000	18.000	1.832
RANGE	4.000	6.000	4.471
MEAN	13.373	15.194	-0.109
VARIANCE	1.480	1.341	0.974
STANDARD DEV	1.217	1.158	0.987
STD. ERROR	0.149	0.141	0.121
SKEWNESS(G1)	0.273	-0.620	-0.536
KURTOSIS(G2)	-0.640	-0.126	0.068
SUM	896.000	1018.000	-7.300
C.V.	0.091	0.076	-9.060
MEDIAN	14.000	16.000	-0.080

PAIRED SAMPLES T-TEST ON LH123 VS LH213 WITH 67 CASES

MEAN DIFFERENCE = -1.821
SD DIFFERENCE = 1.585
T = -9.402 DF = 66 PROB = 0.000



FORM APPROVED. OMB NO. 40-R3712

FORM GR-470-28
(2-15-74)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

EXHIBIT C
(Corn)

OBJECTIVE DESCRIPTION OF VARIETY

CORN *(ZEA MAYS)*

NAME OF APPLICANT(S)
Holden's Foundation Seeds, Inc.

ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*
P.O. Box 839
201 North Maplewood Avenue
Williamsburg, IA 52361

FOR OFFICIAL USE ONLY
PVPO NUMBER
9100071
VARIETY NAME OR TEMPORARY DESIGNATION
LH213

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g. [0][8][9] or [0][9]) when number is either 99 or less or 9 or less.

1. TYPE:

[2] 1 = SWEET 2 = DENT 3 = FLINT 4 = FLOUR 5 = POP 6 = ORNA. ENTAL

2. REGION WHERE BEST ADAPTED IN THE U.S.A.:

[7] 1 = NORTHWEST 2 = NORTHCENTRAL 3 = NORTHEAST 4 = SOUTHEAST
5 = SOUTHCENTRAL 6 = SOUTHWEST 7 = MOST REGIONS

3. MATURITY (In Region of Best Adaptability):

(Under "comments" (pg. 3) state how heat units were calculated)

1 [0][3] DAYS FROM EMERGENCE TO 50% OF PLANTS IN SILK — [1][7][1][5] HEAT UNITS

[0][0] DAYS FROM 50% SILK TO OPTIMUM EDIBLE QUALITY — [0][0][0][0] HEAT UNITS

[0][0] DAYS FROM 50% SILK TO HARVEST AT 25% KERNEL MOISTURE — [0][0][0][0] HEAT UNITS

4. PLANT:

[2][2][9] CM. HEIGHT (To tassel tip)

[0][6][1] CM. EAR HEIGHT (To base of top ear)

[1][5] CM. LENGTH OF TOP EAR INTERNODE

Number of Tillers:

[1] 1 = NONE 2 = 1–2 3 = 2–3 4 = > 3

Number of Ears Per Stalk:

[2] 1 = SINGLE 2 = SLIGHT TWO-EAR TENDENCY
3 = STRONG TWO-EAR TENDENCY 4 = THREE-EAR TENDENCY

Cytoplasm Type:

[1] 1 = NORMAL 2 = "T" 3 = "S" 4 = "C" 5 = OTHER (Specify) _____

5. LEAF (Field Corn Inbred Examples Given):

Color: *5GY 4/4 Munsell Color Charts for Plant Tissues

[*] 1 = LIGHT GREEN (HY) 2 = MEDIUM GREEN (WF9) 3 = DARK GREEN (B14) 4 = VERY DARK GREEN (K166)

Angle from Stalk (Upper half):

[2] 1 = < 30° 2 = 30–60° 3 = > 60°

Sheath Pubscence:

[1] 1 = LIGHT (W22) 2 = MEDIUM (WF9)
3 = HEAVY (OH26)

Marginal Waves:

[2] 1 = NONE (HY) 2 = FEW (WF9) 3 = MANY (OH7L)

Longitudinal Creases:

[3] 1 = ABSENT (OH51) 2 = FEW (OH56A)
3 = MANY (PA11)

Width:

[0][9] CM. WIDEST POINT OF EAR NODE LEAF

Length:

[0][7][7] CM. EAR NODE LEAF

[1][2] NUMBER OF LEAVES PER MATURE PLANT

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6. TASSEL:

[0 4] NUMBER OF LATERAL BRANCHES

Branch Angle from Central Spike:

[2] 1 = < 30° 2 = 30–40° 3 = > 45°

Peduncle Length:

[1 5] CM. FROM TOP LEAF TO BASAL BRANCHES

Pollen Shed:

[2] 1 = LIGHT (WF9) 2 = MEDIUM 3 = HEAVY(KY21)

[1] Anther Color:
[5] Glume Color:
1 = YELLOW 2 = PINK 3 = RED 4 = PURPLE 5 = GREEN
6 = OTHER (Specify) _____

Pollen Restoration for Cytoplasms (o = Not Tested, 1 = Partial, 2 = Good)

[0] "T" [0] "S" [0] "C" [0] OTHER (Specify Cytoplasm and degrees of restoration) _____

7. EAR (Husked Ear Data Except When Stated Otherwise):

[1 7] CM LENGTH [4 3] MM. MID-POINT DIAMETER 1 [0 6] GM. WEIGHT

Kernel Rows:

[2] 1 = INDISTINCT 2 = DISTINCT [1 6] NUMBER

[1] 1 = STRAIGHT 2 = SLIGHTLY CURVED 3 = SPIRAL

Silk Color (Exposed at Silking Stage):

[1] 1 = GREEN 2 = PINK 3 = SALMON 4 = RED

Husk Color:

[1] FRESH
[6] DRY
1 = LIGHT GREEN 2 = DARK GREEN 3 = PINK
4 = RED 5 = PURPLE 6 = BUFF

Husk Extention: (Harvest Stage)

[2] 1 = SHORT (Ears Exposed) 2 = MEDIUM (Barely Covering Ear)
3 = LONG (8–10CM Beyond Ear Tip)
4 = VERY LONG (> 10 CM)

Husk Leaf:

[1] 1 = SHORT (< 8 CM) 2 = MEDIUM (8–15 CM)
3 = LONG (> 15 CM)

Shank:

[1 0] CM LONG [9] NO. OF INTERNODES

Position at Dry Husk Stage:

[1] 1 = UPRIGHT 2 = HORIZONTAL 3 = PENDENT

Taper:

[2] 1 = SLIGHT 2 = AVERAGE 3 = EXTREME

Drying Time (Unhusked Ear):

[2] 1 = SLOW 2 = AVERAGE 3 = FAST

8. KERNEL (Dried):

Size (From Ear Mid-Point):

[1 0] MM LONG [0 8] MM. WIDE [0 4] MM. THICK

Shape Grade (% Rounds)

[3] 1 = < 20 2 = 20–40 3 = 40–60 4 = 60–80 5 = > 80

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8. KERNEL (Dried) :

[8] **Pericarp Color:** 1 = COLORLESS 2 = RED-WHITE CROWN 3 = TAN 4 = BRONZE 5 = BROWN 6 = LIGHT RED 7 = CHERRY RED 8 = VARIEGATED (Describe) colorless at crown and middle of kernel then bronze at pedicel

[1] **Aleurone Color:** 1 = HOMOZYGOUS 2 = SEGREGATING (Describe) _____

[1] 1 = WHITE 2 = PINK 3 = TAN 4 = BROWN 5 = BRONZE 6 = RED 7 = PURPLE 8 = PALE PURPLE 9 = VARIEGATED (Describe) _____

[3] **Endosperm Color:** 1 = WHITE 2 = PALE YELLOW 3 = YELLOW 4 = PINK-ORANGE 5 = WHITE CAP.

Endosperm Type:

[3] 1 = SWEET (su1) 2 = EXTRA SWEET (sh2) 3 = NORMAL STARCH 4 = HIGH AMYLOSE STARCH 5 = WAXY STARCH 6 = HIGH PROTEIN 7 = HIGH LYSINE 8 = OTHER (Specify) _____

[2][4] GM. WEIGHT /100 SEEDS (Unsized Sample)

9. COB:

[3][4] MM. DIAMETER AT MID-POINT

Strength:

[2] 1 = WEAK 2 = STRONG

Color:

[3] 1 = WHITE 2 = PINK 3 = RED 4 = BROWN 5 = VARIEGATED 6 OTHER (Specify) _____

10. DISEASE RESISTANCE (O = Not Tested, 1 = Susceptible, 2 = Resistant):

[0]	STALK ROT (Diplodia)	[0]	STALK ROT (Fusarium)	[0]	STALK ROT (Gibberella)
[0]	NORTHERN LEAF BLIGHT	[0]	SOUTHERN LEAF BLIGHT	[0]	SMUT
[0]	SOUTHERN RUST	[0]	CORN SMUT	[0]	BACTERIAL WILT
[0]	BACTERIAL LEAF BLIGHT	[0]	MAIZE DWARF MOSAIC	[0]	STUNT
[0]	OTHER (Specify)				

11. INSECT RESISTANCT (O = Not Tested, 1 = Susceptible, 2 = Resistant):

[0]	CORNBORER	[0]	EARWORM	[0]	SAPBEETLE	[0]	APHID
[0]	ROOTWORM (Northern)	[0]	ROOTWORM (Western)				
[0]	ROOTWORM (Southern)	[0]	OTHER (Specify) _____				

12. VARIETIES MOST CLOSELY RESEMBLING THAT SUBMITTED FOR THE CHARACTERS GIVEN:

CHARACTER	VARIETY	CHARACTER	VARIETY
Maturity	LH123Ht	Kernel Type	LH123Ht
Plant Type	LH123Ht	Quality (Edible)	
Ear Type	LH123Ht	Usage	LH 123Ht

REFERENCES:

U.S. Department Agriculture. Yearbook 1937.

Corn: Culture, Processing, Products. 1970 Avi Publishing Company, Westport, Connecticut. (Numerous (Authors)

Emerson, R.A., G.W. Beadle, and A.C. Fraser. A Summary of Linkage Studies in Maize. Cornell A.E.S., Mem. 180. 1935.

The Mutants of Maize. 1968. Crop Science Society of America. Madison, Wisconsin.

Stringfield, G.H. Maize Inbred Lines of Ohio. Ohio A.E.S. Bul. 831. 1959.

Butler, D.R. 1954 – A System for the Classification of Corn Inbred Lines – PhD. Thesis, Ohio State University.

COMMENTS:

$$GDD = \frac{Tmax + Tmin}{2} - 50°F$$

$Tmax \leq 86°F$
$Tmin \geq 50°F$

EXHIBIT D

ADDITIONAL DESCRIPTION OF THE INBRED

LH213 is a medium season field corn inbred. As an inbred, LH213 flowers 2 to 3 days earlier than LH51. LH213 has shown some tolerance to cercospora or gray leaf spot.

When compared to LH51 crosses, LH213 hybrids demonstrate a substantial yield advantage and are slightly later. LH213 hybrids have low ear placement and display excellent late season appearance.

Exhibit E

STATEMENT OF THE BASIS OF APPLICANT OWNERSHIP

Holden's Foundation Seeds, Inc., Williamsburg, Iowa, is the sole owner and breeder of the LH213 corn inbred line for which it solicits a certificate of protection.